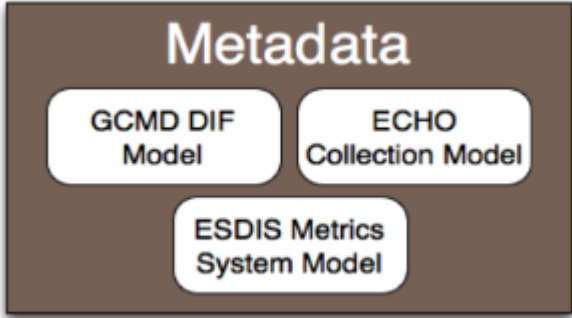# Provider Outreach Transition FAQ

Transition FAQs for CMR Outreach To Providers (strawman)

- These FAQs focus primarily on the near-term transition of DIF and ECHO records into the CMR.
- The strawman list is intended to foment discussion - I haven't attempted to prune redundant or overlapping FAQs.
- If there are FAQs that we are unable to answer (and or that Kevin, ECHO et al do not accept the answer), that may be a sign that we are not yet ready to begin outreach.

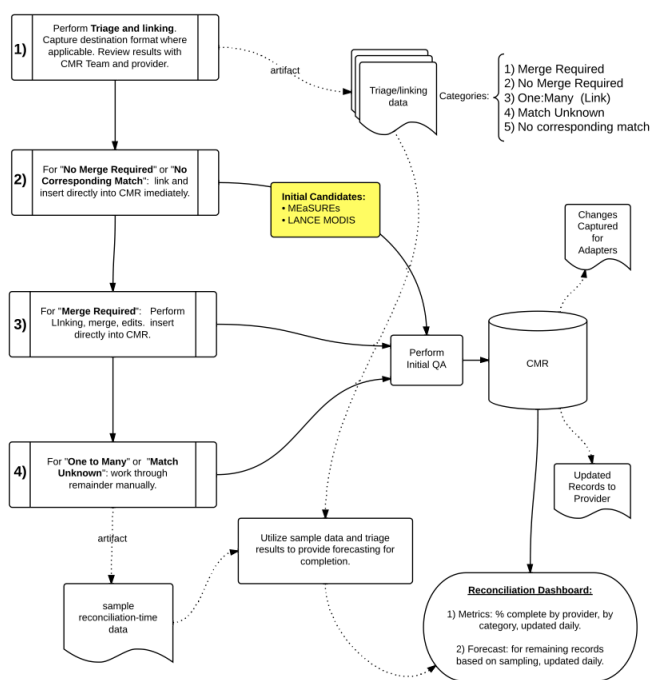### Overall Question - "What do I need to know?"

Question	Answer
What is the CMR?	The EOSDIS Common Metadata Repository (CMR) provides a single source of unified, high-quality, and reliable source of EOSDIS metadata to better serve both end-users and application developers. The CMR introduces a workflow where EOSDIS metadata providers submit one metadata record per collection through a single ingest point regardless of their preferred metadata format.
What is the UMM-C?	The Unified Metadata Model for Collection Metadata (UMM-C) brings together the existing EOSDIS metadata models into a single unified metadata model for use within the CMR. Please see the CMR Wiki for additional documentation and links.
What services (for providers) are planned for the CMR?	The CMR will offer the same services as previously provided by the existing EOSDIS systems and more. Services that will be available are listed below: - CMR Management GUI - Metadata Ingest API (FTP ingest not supported) - docBUILDER - Metadata QA API - Metadata Search API - Metadata Ingest Adaptors - Datacasting - Calendar Service - Metadata Bulk-Change Functionality - Manual Science Team quality assessment of metadata - Automated Metadata Scoring and Assessment Please see the CMR Wiki for additional documentation and links.
Can I continue to use my current set of DIF and ECHO records?	You may continue to use existing metadata format. However, metadata providers will be required to follow the guidlines for the Required (Core), Highly Recommended (Core), and Recommended fields established in the Unified Metadata Model for Collections (UMM-C). Extended versions of the Directory Interchange Format (DIF) and ECH0 10.0 Collection format will be published that meet the UMM-C specifications.

What steps are involved in transitioning current DIF and ECHO records to the CMR?	In General 1. Perform Triage/Linking 2. Insert records "No Merge Required" or "No Corresponding Match" directly into the CMR (If UMM-C Compliant) 3. For "Merge Required" and non UMM-C Compliant "No Merge Required" or "No Corresponding Match" records perform linking, merge, edits, insert directly into the CMR. 4. For "One to Many" or "Match Unknown" work through manually. **Reconciliation Decision Tree:**

Reconciliation Decision Tree flowchart:

1) Perform **Triage and linking**. Capture destination format where applicable. Review results with CMR Team and provider.

artifact → Triage/linking data

Categories:
1) Merge Required
2) No Merge Required
3) One:Many (Link)
4) Match Unknown
5) No corresponding match

2) For "**No Merge Required**" or "**No Corresponding Match**": link and insert directly into CMR imediately.

Initial Candidates:
• MEaSUREs
• LANCE MODIS

3) For "**Merge Required**": Perform LInking, merge, edits. insert directly into CMR.

4) For "**One to Many**" or "**Match Unknown**": work through remainder manually.

artifact → sample reconciliation-time data

Perform Initial QA → CMR

Changes Captured for Adapters

Updated Records to Provider

Utilize sample data and triage results to provide forecasting for completion.

Reconciliation Dashboard:

1) Metrics: % complete by provider, by category, updated daily.

2) Forecast: for remaining records based on sampling, updated daily.

| What steps are in updating records in the CMR? | Metadata providers may update their metadata in the CMR using the following guidelines.

1. You must choose a single metadata format (ECHO10 or DIF) for describing your collection metadata in the CMR.
2. You must choose a single ingest mechanism (A, B, or C) for ingesting your collection metadata into the CMR.

At a high level, you have a few options for ingesting new or updating metadata:

Option A: Submit single ECHO10 formatted Record via REST API
Option B: Submit single DIF formatted record via docBUILDER
Option C: Submit single DIF formatted record via REST API

The following flow chart should help guide your efforts (Click to view in detail):

Please see the CMR Wiki for additional documentation and links. |

Overall Question - "What do I need to do?"

Question	Answer
What do I have to do to transition my DIF and ECHO content to the CMR?	Duplicate question with "What steps are involved in transitioning current DIF and ECHO records to the CMR?"
Will I be allowed to submit my current DIF or ECHO content as is to the CMR?	You may submit DIF or ECHO metadata to the CMR. However, providers must use extended versions of the DIF and ECHO 10.0 metadata XML schemas. These extended models meet the requirements of the Unified Metadata Model for Collection Metadata (UMM-C) and limit information loss when merging metadata. The CMR will only accept metadata that conforms to these extended schemas (SR: Is this true?). At a minimum, the DIF or ECHO metadata must meet the "Required (Core)" fields established in the UMM-C. However, metadata providers are encouraged to add as much information as is necessary to sufficiently describe the data set. That includes the optional "Highly Recommended" and "Recommended" UMM-C fields.
Who is responsible for modifying the DIF or ECHO content to conform with the new validation rules?	Each EOSDIS metadata provider is responsible for modifying their DIF or ECHO metadata to conform with the Unified Metadata Model for Collection Metadata (UMM-C). A Metadata QA RESTful API is available for providers who wish to validate their metadata through programmatic methods. A graphical based Validation Tool may be accessed for manual validation. Furthermore, validation will be integrated into the docBUILDER tool.

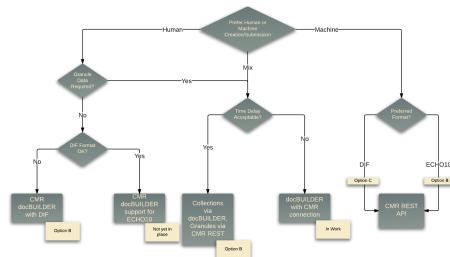| I have augmented the fields and validated the content of my DIF and ECHO records, what are my choices for submitting these records to the CMR (i.e., DIF only, ECHO only, both DIF and ECHO)?	Metadata providers may submit their metadata to the CMR using the following guidelines.
	1. You must choose a single metadata format (ECHO10 or DIF) for describing your collection metadata in the CMR.
	2. You must choose a single ingest mechanism (A, B, or C) for ingesting your collection metadata into the CMR.
	At a high level, you have a few options for ingesting new or updating metadata:
	Option A: Submit single ECHO10 formatted Record via REST API Option B: Submit single DIF formatted record via docBUILDER Option C: Submit single DIF formatted record via REST API
	The following flow chart should help guide your efforts (Click to view in detail):
	Please see the CMR Wiki for additional documentation and links.
I've heard that certain DIF and ECHO records will need to be reconciled. What is reconciliation, why is it necessary and who is supposed to do it?	Reconciliation is necessary in order to ensure that the metadata in the CMR is consistent and of the highest quality. EOSDIS metadata providers are expected to perform the reconciliation with science metadata team and software support from the CMR Team.
	The 5 stages of metadata Reconciliation are listed below:

Step	Action	Description
1	Link	Link metadata records (by ID) to one another if matching record can be determined.
2	Triage	• Assign a merge plan (if merge is necessary) • Identify Parent/Child links (1 to many)
3	Merge	• Metadata format preference (DIF or ECHO) Provider Chooses Format • Review and obtain DAAC acceptance of Parent/Child links • Merge records into single collection entry (DIF or ECHO) • If no merge, go directly to Step 4
4	Edit/QA	• Modify records to include values for UMM-C required fields • Modify records to facilitate collection/granule linkage (as needed) • Fix Inconsistent Product identifiers • Locate and Fix Broken URLs • Normalize Platform/Instrument/Sensors controlled vocabulary
5	Ingest	Ingest reconciled records into CMR

Overall Question - "How do I do it?"

Question	Answer
I prefer the DIF format. Just tell me what I need to do to modify/update my DIF records for the CMR.	

I prefer the ECHO format. Just tell me what I need to do to modify/update my DIF records for the CMR.	
What are the required fields for the new DIF format?	Will insert answer pending release of extended DIF format. GCMD has defined the Required (Core) UMM-C validation rules for the DIF. Validation rules for the extended DIF format will be defined.
What are the required fields for the new ECHO format?	Will insert answer pending release of extended ECHO format. GCMD will define the Required (Core) UMM-C validation rules for ECHO 10. Validation rules for the extended ECHO will also be defined.
What are the rules for validating content for the new DIF format?	Will insert answer pending release of extended DIF format. GCMD has defined the Required (Core) UMM-C validation rules for the DIF. Validation rules for the extended DIF format are pending.
What are the rules for validating content for the new ECHO format?	Will insert answer pending release of extended ECHO format. GCMD will define the Required (Core) UMM-C validation rules for ECHO 10. Validation rules for the extended ECHO will also be defined.
What tools are available to validate a DIF or ECHO record?	There are several tools available for validating your metadata (listed below). Please see the CMR Wiki for additional documentation and links. • Metadata QA RESTful API for programmatic validation • Graphical based tool for manual validation • Validation integrated with docBUILDER
What tools or support is available to add fields to my DIF records?	Metadata providers may chose to add fields to their metadata records using the CMR docBUILDER tool or an XML editor of their choice. Please see the CMR Wiki for additional documentation and links.
What tools or support is available to add fields to my ECHO records?	Metadata providers may chose to add fields to their metadata records using the CMR docBUILDER tool or an XML editor of their choice. Please see the CMR Wiki for additional documentation and links.
What tools or support is available to reconcile my DIF and ECHO records?	There are several tools available for validating your metadata (listed below). Please see the CMR Wiki for additional documentation and links. • Metadata Merge Viewer • Metadata QA RESTful API • Graphical based tool for manual validation • docBUILDER
What is the process for submitting DIF and ECHO content to the CMR?	
What is the process for updating DIF and ECHO content in the CMR?	
How do I find out if my DIF or ECHO content has changed in the CMR?	
I don't want to continue to have to submit DIF or ECHO content, can I submit UMM-C content instead?	